

DigLogs

Regional event

held in Venice (IT) on 14th July 2021

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Meeting Overview

On 14th July 2021 CFLI organized in Venice (IT) a Regional Event.

It was attended by 42 people, the speakers and some other stakeholders were in presence at CFLI premises, but it was also possible to follow the event by a remote connection.

The event "Ports 4.0 or 0.4? Perspectives and development of digitalisation in the port sector" was organized to reflect and discuss, in the framework of DigLogs project, on the level of digitalisation of the ports of Venice and Chioggia and their development perspective.

The event took place during the morning. After an introduction to the theme of digitalisation by Mr Pajaro, saw the illustration of some virtuous examples of companies that introduced in their business some technological innovation and ended with the intervention of the President of the North Adriatic Sea Port Authority and the Admiral of the Venice Coast Guard who presented an analysis of the state of the art of digitalisation and especially the future perspective for the ports of Venice and Chioggia.

1. Meeting agenda

Here below is reported the meeting agenda.

"Ports 4.0 or 0.4? Perspectives and development of digitalisation in the port sector"

9:45 – 10:00	Registration
	Welcome and opening remarks
10:00 – 10:10	<i>Dott. Enrico Morgante – Director of CFLI – Training Logistics and Intermodal Consortium</i> <i>Dott. Roberto Crosta – Secretary General Unioncamere del Veneto</i>
10:10 – 10:30	State of the art of digitisation in the logistics and transport sector <i>Ing. Andrea Payaro – Logistics expert</i>
10:30 – 10:50	Digital tools to support the last rail mile <i>Ing. Antonio Tieri – General Manager ERF - Esercizio raccordi ferroviari di porto Marghera S.p.A</i>
10:50 – 11:00	Digital tools to support Maritime Transport <i>Ing. Filippo Menegato – Transas – Wartsila Group</i>
11:00 – 11:10	Tool to support the logistics <i>Pier Luigi Tiozzo – sales manager Erpritec –Levia Group</i>
11:10 – 11:30	DigLogs pilot action developed by within North Adriatic Sea Port Authority <i>Prof. Giovanni Borga –IUAV University of Venice</i>
11:50 – 12:10	Port community requirements <i>Alessandro Santi – Federagenti president</i>
12:10 – 12:30	Digitalisation processes at the service of maritime safety <i>Rear Adm. Piero Pellizzari – Coast Guard Regional Commander</i>
12:30 – 12:50	Digitisation and increased port performance <i>Fulvio Lino Di Blasio – President of North Adriatic sea Port Authority</i>
12.50 – 13.00	End of the meeting

Chairman: Dott. Enrico Morgante –CFLI Director

2. List of participants:

N.	NAME	SURNAME	INSTITUTION
IN PERSON			
1	Antonio	Velleca	Venezia 1937
2	Paolo	Menegazzo	AdSP MAS
3	James	Orlandi	AdSP MAS
4	Alvise	Romanelli	Venice Ro-Port MoS
5	Daniele	Marchiori	Vecon
6	Stefano	Costa	NCLP
7	Gianni	Satini	FAI
8	Salvatore	Basilicò	Capitaneria di Porto di VE
9	Christian	Sottana	Transport Service Srl
10	Paolo	Salvaro	Confetra Nord Est
11	Nicola	Jannino	TRV
12	Marco	Gorin	Ormaggiatori del Porto di VE
13	Federico	Paluan	Loges Srl
14	Michele	Gallo	Assoagenti
15	Claudia	Forzan	CFLI
16	Marco	Della Puppa	CFLI
17	Michele	Gottardi	CFLI President
18	Pietro	Vitali	ERF
ONLINE			
19	Roberto	crosta	Unioncamere Veneto
20	DIEGO	BARBIERO	ESERCIZIO RACORDI FERROVIARI
21	Stefano	Vitale	Union Shipping Srl
22	Roberta	Lazzari	Unioncamere del Veneto
23	Giuseppina	Botti	GAL Patavino scarl
24	Lorenzo	Mayer	Autorità di Sistema Portuale del Mare Adriatico Settentrionale
25	stefano	coccon	S.D.C. SERVIZIO DOGANALE CONTAINERS SRL

26	GIACOMO	DE STEFANI	CAMERA DI COMMERCIO VENEZIA ROVIGO
27	Arianna	Pittarello	Unioncamere Veneto
28	LUCA	FELTRIN	WeEurope Srl
29	Gabriele	Bevilacqua	Mondial International Transport Div. Venezia di GSG SPA
30	Giuseppe	Mineo	Sigest
31	Jacopo	Contavalli	Confindustria Veneto SIAV
32	Luca	Abatello	Circle group
33	Lourdes	Vecchione	RRPanfido
34	MARINA	CALDERAN	RRPanfido
35	Andrea	Sardo	Consorzio Portuale Trapani (CPT)
36	Mario	Feltrin	camera di commercio Venezia Rovigo
37	Simone	Costantini	techneprojects s.r.l.s.
38	Paolo	Bagatin	GEODEM
39	Chiara	Tagliaferro	CCIAA VE RO
40	Andrea	Forcellini	ISS-Tositti Srl
41	Raffaello	Cioni	Port Consultant
42	Matteo	Apollonio	DBA PRO.
43	Gianluca	De Santis	ASPO ORTONA VASTO

3. The speakers

Andrea Payaro

He has a degree in Computer Engineering; a PhD in Management Engineering from the University of Padua with a thesis on e-business adoption levels in large companies in the North-East. Post-doctoral specialisation course in Management Engineering. He is a certified consultant by ELA (European Logistics Association) at the highest level of competence and was a contract professor of logistics at the Faculty of Engineering of the University of Padua until 2012.

Since 2000 he has been developing management consulting activities in the field of company operations, logistics and warehouse organisation.

Vice President of SCM-Academy (Supply Chain Management Association), he collaborates with national magazines in the field of marketing (FMCG) and logistics. Since 2009, he has been an expert lecturer for the Central Committee of the Road Transport Register - Ministry of Infrastructure and Transport.

He has presented the contents of his activities and research at international conferences and in Master's courses at the main Italian universities.

Antonio Tieri

Antonio Tieri has a degree in Engineering for the Environment and Territory, a 2nd Level University Master's degree in Energy and Environmental Management and a PhD in Infrastructure and Transport. Since 2014 he has been a consultant in Transport Engineering and General Manager ERF - Esercizio Raccordi Ferroviari di Porto Marghera, as well as President, since 2019, of Fercargo Manoeuvre. Fercargo is the Italian Association of Rail Shunting operators in the freight sector and brings together the main Italian shunting companies: Cargo Rail Italy, ERF, Fuorimuro, Hupac, La Spezia Shunting Railways, Logyca UMF, Quadrante Servizi, Sograf, TS Traction & Service.

In 2018, ERF was certified as a Railway Undertaking by the National Agency for Railway Safety, thanks to which the company has since been able to train its train drivers and operators and operate the shunting service independently.

Filippo Menegato

Filippo Menegato is key account manager at Transas and Wartsilia. Thanks to his technical background (engineering of telecommunication) Filippo Menegato started his career as System Engineer for several companies; pursuing his personal attitude to deal with customer.

He have fast moved from technical aspect to sales activities for multinational companies taking care of worldwide customer and markets.

His capability and willingness in achieving target and results has granted to his to become Global Cluster Coordinator handling a team aimed to fast growing revenues and business opportunity. New challenges are source of motivation for his allowing bringing great results.

Giovanni Borga

Giovanni Borga is graduated in Architecture at the University Institute of Architecture of Venice, on 27 October 1999, supervisor Prof. Luigi Di Prinzio, with a thesis on the application of Web GIS technologies in the field of administrative management and has a PhD in New Technologies and Territory-Environment Information.

Since 2018 he is a consultant for the Port System Authority of the Northern Adriatic Sea ports of Venice and Chioggia and a lecturer for the Intermodal Logistics Training Consortium of Venice in the field of geographic data management and specialized training on Geographic Information Systems.

During 2020 he is a consultant for HMS IT SpA for the Strategic Plan of the new Geographical Information System of Roma Capitale "GEOROMA".

Since 2019 he has been a consultant for Novabase Digital, now Axians Digital Consulting, in supporting the training programme for the ministries of the Republic of Mozambique on the project "Technical Assistance Mainstreaming Spatial Planning in Priority Institutions and Development of Advanced Analytical Tools".

Is a founding partner of UniSky srl, a spin-off company of the IUAV University of Venice, which operates in the field of innovation in technologies for monitoring and analysis of the territory and

the environment. With UniSky Srl she collaborated in the realisation of the web platform for innovative tourist services in Peschici, Omniturist, the PUGSS (Urban Management Plan for Underground Services) of the municipality of Mantova and the Territorial Information System project for the middle course of the Brenta river.

His activities are related to the organisation, analysis and visualisation of data, the design of monitoring systems and Geographical Information Systems, Info-Design, Web Design and Smart Product Design.

Alessandro Santi

Alessandro Santi, owner of maritime agencies operating in various commercial and passenger sectors, has been President of the National Federation of Maritime Agents, Recommenders and Mediators since December 2020.

Piero Pellizzari

Rear Admiral Piero PELLIZZARI attended the Italian Naval Academy in Livorno, Italy from 1979 to 1983. As an Italian Navy Officer, he attended the United States Navy flight school where he qualified as a Naval Aviator. He transferred to the Italian Coast Guard in 1991 where he has participated in the main Coast Guard projects concerning supply and updating of systems and services in the fields of communications, maritime traffic monitoring, radio navigation and newly developed vessel command/control/communication systems.

Since 1996, he has actively contributed to and fostered the Italian national VTMS platform as well as the Mediterranean AIS server for exchange of navigational data among the EU Mediterranean Sea countries' implementation plans, in strict coordination with EMSA.

He has been in charge of a number of important projects for several years now aiming at digitalisation of port arrival/departure procedures and integration with existing/developing systems in local port communities and other State agencies, and of the Italian Single Window (referred to in the 2010/65/EU Directive) design and implementation.

He is currently the maritime director of the Veneto region and commander of the Coast guard of the port of Venice.

Fulvio Lino Di Blasio

Fulvio Lino Di Blasio, President of the North Adriatic Sea Port System Authority - Ports of Venice and Chioggia, graduated in Law at the University of Pavia.

He has more than 22 years of professional experience, of which more than 18 years in the field of strategic planning consultancy and implementation of complex public spending programmes (co-financed or not by the EU) with a particular focus on the infrastructure/transport/logistics/port sector.

In particular, from 1999 to 2004, he was involved (in Milan, Rome and Palermo) in consultancy and support to public administrations (local, national or EU) for the construction, implementation, evaluation, monitoring and control of public policies, developing a deep knowledge of territorial development programmes and of the functioning mechanisms of the Italian and EU Public Administration.

He has in-depth knowledge and experience in the infrastructure, transport, logistics and port sector, having worked since 2005 with EY alongside the Ministry of Infrastructure in managerial positions in the management, implementation and monitoring of complex programmes and projects such as PON Networks and Mobility 2007-2013, Interreg IIIB MEDoc, PIC Urban, Urban Italia, Urbact. In particular, for the port sector, he has coordinated EY working group with a managerial role in the activity of strategic and methodological support for the drafting of the National Strategic Plan for Ports and Logistics, working first in support of the Committee of Experts and then of the New Technical Structure of Mission.

4. Welcome and opening speech

The meeting has been chaired by the Director of CFLI, Mr Enrico Morgante, who welcomed the participants, introduced the meeting and gave, firstly to Mr Michele Gottaradi for his welcome speech and then to Mr Crosta, Secretary General of Unioncamere del Veneto, that contributed to the organization of the event.

Mr Morgante then explained that the programme for the day included an introduction to the theme of digitalisation by engineer Pajaro, followed by the presentation of some best practices by companies operating in the context of the port and logistics and representing excellence in the field of digitalisation. These best practices will make it possible to make an analysis of the state of the art of digitalisation, to see where we are, how we are positioned in logistics, which products are working, and what scenarios we may face in the coming years.

5. State of the art of digitisation in the logistics and transport sector

Mr. Pajaro started the presentation introducing himself and then giving a definition of digitization and digitalization. The first term describes the conversion of continuous, noisy and uniformly varying analogue information into clear bits of 1 and 0. (*T. Feldman, An introduction to digital media. London; New York: Routledge, 1997. R. Pepperell, The posthuman condition: consciousness beyond the brain, New ed. Bristol, UK ; Portland, OR: Intellect, 2003.*). The second one describes the social implications of increased computer assistance, new media and communication platforms for the economy, society and culture. Management of processes through the use of ICT. (*M. Castells and M. Castells, The rise of the network society, 2nd ed., With a new pref. Chichester, West Sussex ; Malden, MA: Wiley-Blackwell, 2010. J. van Dijk, The network society: social aspects of new media, 2nd ed. Thousand Oaks, CA: Sage Publications, 2006.*).

Mr Pajaro then gave an overview of the digital tools used in logistics, which are already known, i.e. Barcode, RFID, Beacon, IOT and Blockchain and illustrated concrete examples of their use in different working environments.

He then explained how the future lies in artificial intelligence. Artificial intelligence (AI) is defined as the ability of machines to communicate and mimic the capabilities of human beings (Schutzer, 1990). AI-based supply chain management solutions are expected to be powerful tools to help organisations deal with longer and increasingly interconnected physical flows, market volatility, the need for agility and flexibility with a greater focus on the environmental impact of supply chains. AI is the ability to analyse huge volumes of data, understand relationships, provide visibility into operations and support better decision-making makes it a potential game changer for supply chain management.

6. Just In Time Operations

Filippo Menegato introduces himself by explaining that he is part of Wärtsilä Voyage, which deals with maritime traffic from the port of departure to the place of arrival and everything related to the voyage, i.e. monitoring it, making the routes more efficient, reducing consumption and so on.

While some of the concepts may seem a little obvious, traffic is not, which is why scientists are devising systems to ensure that ships arrive at their destination port at the right time, i.e. when the terminal is actually available. When this does not happen, resources and time are wasted, including fuel consumption, waiting times and pollution. It is estimated that, globally, \$85 billion is spent each year on waiting time, fuel, and access to congested port facilities. And the fact that port facilities are forced to invest in new facilities, expansions that are then not used to 100% of their capacity. A concrete example is a ship that leaves the port of departure at full speed to arrive at the port of arrival, then in the process, is informed, but late, that the time at which the ship is scheduled to arrive at the port terminal is not optimal. For example, because the terminal is not available, because there are other ships before it. As a result, the ship may reduce its speed, but it will still arrive too early in front of the terminal, because there are dozens of ships waiting to enter the port. What happens is that the ships stay out there and continue to consume fuel? They continue to emit into the atmosphere and that is not the only problem.

In order to counter these issues, Wärtsilä has conducted numerous studies at foreign ports that have enabled it to develop a digital platform that connects a ship's navigation system to the port and enables Just-in-time arrivals. Navi-Port facilitates accurate arrival times between ports and ships, enabling vessels to adjust speed to achieve just-in-time arrival automatically. Dynamic, real-time data sharing improves coordination allowing for modifications to course and speed should conditions at port change during a voyage. For ports, Navi-Port enables a better and more efficient port and terminal operations planning while also reducing congestion and the risk of collisions.

7. Digital tools to support the last railway mile

Mr Tieri started his presentation by clarifying what is meant by last railway mile. So, it is so varied from a regulatory point of view, both at Italian and European level, that there is currently a technical round table at the Ministry to try to define what it is exactly.

For those coming from the railways, the port of call for ships is the station; for those coming from the roads, it is actually the terminal, which we can call intermodal. There is hardly any integration at all, I would say, and there is no integration because there never has been. Very interesting what my colleague said. And maritime transport because there was no data sharing, i.e. the first thing is the most. No one from the ship knows when a train arrives, which will then have to load the same goods. Nobody from the train knows when the ship arrives. This means that there is no scheduling and this means that is not inconsiderable problem at the level of then of capacity of the system.

From a conceptual point of view, the last railway mile is trivial: it is the combination of three subjects, three infrastructures, a railway station, starting from the right, a siding which is in fact a track. In Italy, it often happens that trains are moved in the last mile by four different people. The problem is often not so much one of the instrument as of the process: no IT tool can solve a complicated situation like the one in Venice.

Fortunately, we've been doing a bit better in Venice since 2017, because thanks to an agreement with RFI, we're doing process innovation. This means that ERF, the company I represent, is doing both a single operator and a single manoeuvre. This means not so much improving with IT tools, but eliminating all the intermediate steps. So this is a first fundamental thing to focus very much first on the process and then on the tool.

The first step in the digital transition we made in the last railway mile of Porto Marghera was to develop a computer system. In fact, it is a system with which customers can request train shunting, i.e. movements within the railway district can be interfaced with shunting teams, i.e. with locomotive drivers. It is therefore thanks to three European projects of the Port System Authority that we have developed the prototypes of the SIMA system.

Finally, Mr Vitali presented the operation of the SIMA system.

8. Pilot action for AdSPMAS within the Interreg "DigLogs" project

Mr Borga explained the contents of the pilot action developed by CFLI within the DigLogs project at the Northern Adriatic Sea Port Authority (NASPA).

With the pilot action, a Geodatabase has been installed and configured as the main engine of the spatial data infrastructure and the operators (NASPA employees) will be trained in the use of the Geodatabase. At this stage, a suitable input data package was selected with which to perform the optimisation and migration operations and also a group of employees were given a special coaching programme aimed at improving their performance in using the new system for their work activities. Operators are now able to connect their workstations to the Spatial Data Infrastructure (SDI), access and process the data and produce outputs according to special management protocols. The Spatial Data Infrastructure allows processed data and maps to be stored as new datasets or as algorithms that process the data in real time, without forcing operators to change familiar working tools.

The proposed activities do not require software development, therefore the pilot action has an "enhanced training" approach in order to achieve both an organisational improvement and an improvement in the skills of the workforce, by fostering awareness of how spatial data visualisation and awareness of how spatial data processing can support decision-making.

9. Digitisation and increased port performance

Mr Di Blasio, President of the Northern Adriatic Sea Port Authority, starting from the illustration of the specific characteristics of the Proto di Venezia, in particular with regard to nautical accessibility, illustrated how digitalisation can be useful to manage the complexity of the territory and the resulting constraints on navigation.

The new tools for digitising information, with particular reference to cartographic information, make it possible the integration of various data sources, creating correlations and allowing a comprehensive management of the territory according to different needs.

The areas in which these tools can be implemented are many and varied with respect to users and issues. Mr Di Blasio then presented a number of examples of use, all based on a single cartographic data organisation system.

To date, NASPA manages a large amount of data, including cartographic data, but subdivided into different datasets and used in different applications that do not allow for integrated analyses. The available data are therefore not "aggregated" on a single, updated and shared cartography.

The first step is therefore to create the "geographical base" and the infrastructure to use it, on which all the available data will then be correlated. NASPA has undertaken - also thanks to the Diglogs project - such a path with which:

- the IT infrastructure was created;
- a new up-to-date digital cartography has been created

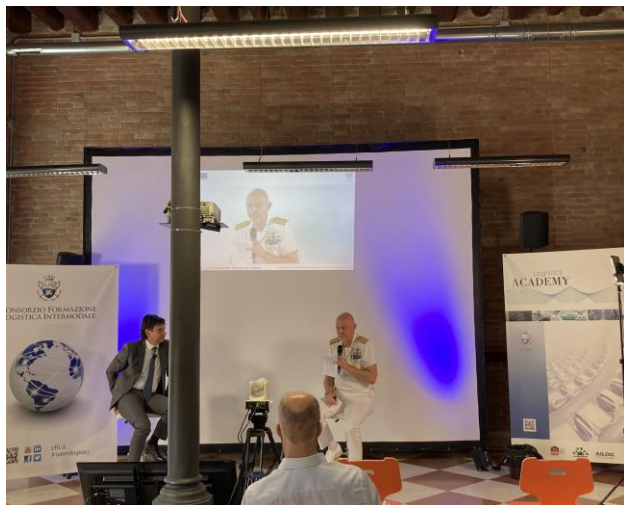
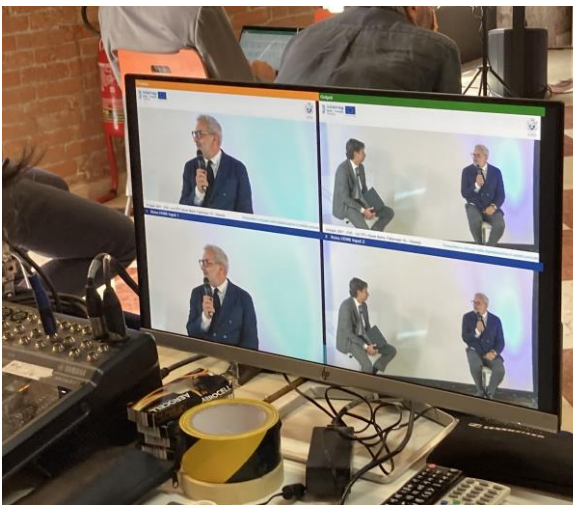
but in parallel with the technical developments, it remains crucial to - to sign agreements between authorities to guarantee the sharing of information, - to define procedures, - create a new way of working.

10. Digitalisation for the Maritime Authority

The Rear Admiral Pellizari explained that Digitalisation for the Maritime Authority is the tool to increase: the safety of navigation, the efficiency of maritime traffic and environmental sustainability. The Digitalisation for the Maritime Authority consists of:

- eNavigation, a harmonised collection, integration, exchange, presentation and analysis of maritime information - on board and ashore by electronic means - for the improvement of navigation from the departure quay to the arrival quay and related services, for the benefit of safety at sea and the protection of the marine environment;
- the Vessel Traffic Service (VTS), a service or set of services established by a competent authority, designed to enhance the safety and efficiency of maritime traffic and protect the environment. The service must have the capability to interact with and respond to traffic evolution in the VTS area.
- the National Maritime Single Window (NMSW), foreseen in both European and national legislation, according to which the so-called PMIS was developed.

11.Pictures



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**EVENTO
REGIONALE**



CFLI – CONSORZIO FORMAZIONE LOGISTICA INTERMODALE

Ha il piacere di invitarla a

4.0 O 0.4? PROSPETTIVE E SVILUPPO DELLA DIGITALIZZAZIONE IN AMBITO PORTUALE



QUANDO

14 LUGLIO 2021 ORE 10



DOVE

CFLI – SANTA MARTA, FABBRICATO 16, VENEZIA

Online registration form: www.italy-croatia.eu/web/diglogs/events